Appendix B

Policies & Incentives to Encourage Pollution Prevention

The Indiana Clean Manufacturing Advisory Committee was created in 1997 under Senate Enrolled Act 319. The purpose of CMAC was to carry out a study and make recommendations to the General Assembly, the Governor, and the Indiana Department of Commerce concerning:

1) The creation of a state program to promote clean manufacturing as an economic development concept.
2) The integration of clean manufacturing concepts into the policies of the state's economic development programs.
3) Coordination of clean manufacturing programs in Indiana.
4) Funding and structure of a clean manufacturing program created under subdivision No. 1.
5) Public input and comments concerning a clean manufacturing program.

The committee was chaired by Ms. Cheryl DeVol-Glowinski, Indiana Department of Commerce, Energy Policy Division. Members included Dr. Lynn A. Corson, Indiana Clean Manufacturing Technology and Safe Materials Institute; Mr. Kevin Doyle, National Steel; Mr. David Hadley, United Mineworkers; Mr. Thomas Kolbus, Ford Automotive; Mr. Paul H. Luchtefeld, Delphi Delco Electronics Sytems; Mr. Tom Neltner, Esq., formerly with the Indiana Department of Environmental Management, Office of Pollution Prevention and Technical Assistance; Mr. Grant Smith, Citizens Action Coalition; Ms. Rosemary Spalding, Esq., Attorney at Law; Dr. Graham S. Toft, Indiana Economic Development Council, Inc.; and Mr. John R. Wilkins, Eli Lilly and Company.

CMAC's Final Report was submitted to the Governor and the General Assembly in August 1999, and its recommendations follow below.

For a complete copy of the Final Report, please contact either IDEM's Office of Pollution Prevention and Technical Assistance or the Indiana Economic Development Council, Inc.

Clean Manufacturing & Sustainable Economic Development Recommendations

1 Improvements to Screening Businesses for Public Assistance

Current Practice

Incentives offered by the Department of Commerce or by local governments are primarily based on amount of investment and/or estimated jobs created by a new or expanding businesses. Environmental issues, other than permitting, are seldom raised in the course of financing deals to locate or expand in the state. It is not the Indiana Department of Commerce's current practice to draw attention to Indiana's clean manufacturing priorities or to raise awareness of clean manufacturing technologies and opportunities that might reduce long-run costs and improve performance. No routine screen is made by the Indiana Department of Commerce concerning clean manufacturing practices of the business.

Deliberations

The City of Portland, Oregon is experimenting with an expanded service to businesses receiving public support from the Portland Development Commission. As part of the loan application to PDC, the firm receives a pollution prevention review/visit. By introducing pollution prevention at an early stage, the City is hoping for cost savings to the business, environmental benefit to the community, and reduced regulatory oversight because the firm would have exceeded pollution control requirements.

The underlying approach to all three recommendations below is that any firm receiving state assistance be viewed as a candidate for making clean manufacturing improvements. In this way economic development support helps build momentum toward clean manufacturing practices.

▶ Recommendation 1

Include environmental performance of firms as one of the several screening criteria in determining eligibility for Indiana Department of Commerce aid. Indiana should expect firms of all sizes receiving financial aid to be exemplary of high performance business practice, including pursuit of sound environmental practices. One criterion in determining exemplary environment performance is the degree to which a firm has adopted such business practices as a formal environmental management system that addresses clean manufacturing (such as ISO-14001), participation in the Governor's Toxic Reduction Challenge, participation in IDEM's 100% Club, and participation in a local industry cluster addressing National Emission Standards for Hazardous Air Pollutants compliance.

▶ Recommendation 2

Require manufacturing firms receiving IDOC public assistance to agree in writing via standard contractual language for IDOC incentive funds to further the State of Indiana's long term commitment to clean manufacturing by stating the company's intent to reduce environmental waste generation per unit of production.

▶ Recommendation 3

During the process of finalizing incentives at IDOC (such as Training 2000, infrastructure funds, and EDGE credits), offer targeted firms a state supported preliminary clean manufacturing assessment and orientation to Indiana's various clean manufacturing services and industry partnerships. Firms might be targeted by industry, technology change, or regulatory priorities, such as new NESHAP requirements. To accomplish this, IDOC and CMTI should develop criteria and metrics for targeting priority manufacturing sectors.

2 Improvements to the Regulatory Process

Current Practice

The regulatory process, especially that for permitting for new or expanded facilities, has become very time sensitive. The primary concern of regulatory agencies such as IDEM, the Indiana Department of Natural Resources and the Fire Marshall's Office is to conclude the permitting process in a professional/time-sensitive manner. Here the primary objective is to ensure minimum standards are achieved at minimal cost of delay. Currently, Indiana statute requires permit processing times from 120 to 270 days. Permits are needed in a prompt manner, or market opportunities may be lost. Because time is crucial to business profitability, responsible firms might be attracted to an expedited regulatory process, thereby reducing costs of delay.

Deliberations

As in the case of IDOC public assistance, the regulatory process provides opportunities to encourage and educate firms about clean manufacturing. This is an ideal time to promote change because new investments are being made—small changes in process design and materials flow can lead to significant cost savings in reduction of toxics and waste generation. But any intervention in this regard must respect the time-sensitivity of the permitting process.

▶ Recommendation 4

IDEM should extend the current interim construction permit process beyond air to all media and incorporate a recognition that clean manufacturing projects provide additional benefits and should be given special consideration.

3 Improvements to Information Support and Program Coordination

Current Practice

Information on clean manufacturing is available to existing businesses in a piecemeal and uncoordinated fashion. Providers of information include CMTI, OPPTA, Business Modernization and Technology/Regional Manufacturing Assistance Service, Small Business Development Centers, and a variety of non-profit and for-profit consultants. In many cases, environmental information is secondary to the main purpose of any inquiry. Systematic field diagnostics are available through the office of CMTI and specialty consulting firms. CMTI's four priority sectors are wood products (furniture and cabinets); plastics manufacturers, including fiber reinforced plastics; metal plating and coating; and motor vehicle parts manufacturers.

Deliberations

Government can and should address the organizational communication problems it has created. Modern management practices and technologies can be applied at modest upfront costs leading to lower costs and greater customer service for the long haul.

▶ Recommendation 5

Adopt a Web-based business information support system tied to the State Information Center with a section dedicated to clean manufacturing. The model proposed should be along the lines of that of the Indiana Environmental Extension Network formulated last year by a group of approximately 30 providers of various environmental and business modernization services. This Web-based information source would ensure broad-based dissemination about services intended primarily for use by small businesses and small municipalities.

▶ Recommendation 6

Create a function within IDOC to:

i) Promote the inclusion of clean manufacturing in all IDOC programs;
ii) Educate all IDOC staff on the criticality of clean manufacturing as a component of sustainable economic development; and
iii) Improve communications with clean manufacturing partners outside IDOC, including the state's small and technology business organizations, ISBD Corp. and BMT. Communication should also be developed with intermediaries serving small businesses such as banks, non-bank financiers, accountants, lawyers, utilities, economic developers, and site selection consultants.

4 Improvements to Tax and Financial Incentives

Current Practice

- Corporate Income Tax Concessions: Resource recovery systems used to manage solid or hazardous waste.
- Sales and Use Tax Exemption: Pollution abatement equipment required by federal, state, or local laws.
- Local:
  - Local property tax deduction: use for resource recovery and hazardous waste recovery systems (at local level only, phased out at state level); exemptions for air and water pollution control equipment.
  - Tax increment financing can be used for business equipment. Pollution control and pollution prevention would fall under that category.
  - Local business personal property tax abatements can cover pollution prevention as well as pollution control equipment.

Deliberations

CMAC recognizes that information, education, and coordination are probably more important than tax and financial incentives. However, current law and state tax and finance programs favor pollution control over pollution prevention and clean manufacturing. At least the state should create a level playing field. CMAC notes that several states are attempting to remedy this situation. For example, both Maine and Michigan have been seeking sales, use and property tax exemptions on equipment that "prevents" pollution, as is already the case for equipment that "controls/abates" pollution. At the local level, tax abatement and tax increment financing are used extensively to foster economic development. Attempts to reduce local property taxing powers may curtail the use of property tax incentives.

▶ Recommendation 7

The state should undertake a study of the economic and fiscal impacts of a clean manufacturing income tax credit or related incentive. The intent is to corroborate or refute the findings of the 1996 study "Assessment of the Economic and Fiscal Impacts of Pollution Prevention in Indiana" funded by Citizens Action Coalition (see Appendix 9 in CMAC's Final Report). A research panel should review the methodology and interpretations of findings.

▶ Recommendation 8

Increase business incentives and other IDOC support services to firms that incorporate clean manufacturing technologies and processes. IDOC incentives should be prioritized in favor of those manufacturers that are leading in new practices and approaches to advanced manufacturing including the deployment of clean manufacturing. Training incentives to qualifying firms, for example, would be awarded at a larger amount per worker. The loan guarantee fund might be adapted to leveraging financing for clean manufacturing by private

financial institutions. To accomplish this, IDOC and CMTI should jointly develop criteria and metrics (see Recommendation 3). These must be developed relative to the industry because clean manufacturing is more advanced in some industries than others.

5 Improvements to Research and Development Incentives

Current Practice

Indiana's research and development tax credits parallel the federal tax law. Essentially, the R&D credit applies to incremental R&D expenditures above a prior three-year average. A floor and a ceiling on expenditure growth apply.

Deliberations

Clean manufacturing by its nature requires significant research and development. Many industrial processes in Indiana today still generate substantial metallic wastes, e.g., the plating industry. New technology development is urgently required in "dragout" and solvent replacement. Furthermore, research and development involving potentially toxic and hazardous materials, such as the life sciences, calls for significant innovation. One of the best ways to improve clean manufacturing over the long run is for it to be fully incorporated in the design of new manufacturing processes and materials substitution. While expenditures on clean manufacturing associated with research may be included in total R&D expenditures for claiming the research and development tax credit, many uncertainties about the application of the law prevail. Moreover, the same case applies to pollution prevention R&D for commercial operations. Indiana is disadvantaged relative to Ohio, for example, which fosters collaborative productivity and environmental research at its Edison Centers.

▶ Recommendation 9

The state should initiate a thorough study of the application of the R&D tax credit to clean manufacturing breakthroughs. The study should explore ways to encourage greater expenditures on innovation in clean manufacturing by:

i) Increasing the allowable credit for clean manufacturing R&D expenditures; and
ii) Devising an R&D tax incentive specific to clean manufacturing.

When undertaking this study the potential for R&D tax credits applied to pollution prevention in commercial operations might also be explored.

6 Improvements to Business Clusters/ Industry Alliances

Current Practice

The state's Strategic Development Fund provides wide-ranging opportunities for groups of firms/ industry alliances to apply for matching state financial assistance to pursue a common strategy, e.g., industry training initiative, joint marketing, product development. To date, the SDF has been primarily used for training initiatives but recent awards in technology development are encouraging.

Successful industry alliances such as in the wood products and advanced reinforced plastics industry sectors have addressed environmental compliance and clean manufacturing issues. In both cases, the local Chamber of Commerce representing these manufacturers was awarded a Strategic Development Fund grant matched by industry contributions.

Deliberations

Fostering self-selecting business alliances addresses two opportunities:

1) Improving clean manufacturing in a greater number of firms, and
2) Industry-wide dissemination and acceptance.

Furthermore, by joining together, firms with common problems frequently come up with creative solutions that may not have been contemplated on a firm-specific basis. The greatest promise for widespread knowledge and acceptance of clean manufacturing will come through interfirm collaboratives, industry alliances, and trade associations. Firms learn best and most from each other.

▶ Recommendation 10

Increase funding for the Strategic Development Fund and earmark a portion of the Fund for clean manufacturing. Encourage groups of firms to jointly solve tough technology and operations problems. These firm collaboratives could organize by technology, industry, or geography. This approach is particularly valuable in addressing the problems of non-attainment areas. Before deploying these new funds, thoroughly evaluate the technology development applications of SDF funds to date in order to make improvements to program effectiveness.